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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/539,831

02/28/2006

Partho Sarkar

10008.0100

1145

39602 7590 06/16/2011  
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EXAMINER

ECHELMMEYER, ALIX ELIZABETH

ART UNIT

PAPER NUMBER

1729

MAIL DATE

DELIVERY MODE

06/16/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/539,831	<b>Applicant(s)</b> SARKAR ET AL.	
	<b>Examiner</b> Alix Elizabeth Echelmeyer	<b>Art Unit</b> 1729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2011.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 26,29,30 and 33-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 26,29,30 and 33-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/9/11</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This Office Action is in response to the amendment filed May 23, 2011. Claims 2-18, 20, 21, 24, and 25 are cancelled. Claims 1, 19, 22, 23, 27, 28, 31, 32, and 43 were previously cancelled. Claims 26, 29, 30, 33-37 are rejected non-finally for the reasons given below.

### ***Information Disclosure Statement***

2. The information disclosure statement filed June 9, 2011 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. Specifically, no copy of JP 2860795 has been provided. It has been placed in the application file, but the information referred to therein has not been considered.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 26, 29, 30, and 33-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sarkar et al. (US 2003/0134171).

Regarding claims 26, 33, and 34, Sarkar et al. teach a method of manufacturing a solid oxide fuel cell including providing a wooden substrate member or combustible core, electrodepositing an inner electrode and electrolyte, sintering the combustible core, and then applying an outer electrode layer (abstract, [0033]).

As for claim 35 and 36, Sarkar et al. teach dip-coating or electrodeposition ([0033]).

With further regard to claims 26 and 33 and regarding claims 29 and 37, Sarkar et al. fail to teach a plurality of cores.

It would have been obvious to one having ordinary skill in the art at the time of the invention to provide a plurality of cores, which would provide a plurality of cells. The skilled artisan will recognize that a plurality of cells would allow for a larger production of electricity. It has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. MPEP 2144.04 VI B

Furthermore, it would have been obvious to one having ordinary skill in the art at the time of the invention to arrange the multiple cores (and therefore multiple fuel cells) of Sarkar et al. according to the desired space where the fuel cells would be used, such as in order to fit the cells into a given utility room. It has been held that rearranging the parts of an invention involves only routine skill in the art. MPEP 2144.04 VI C

With regard to claims 30, 36, and 37, it would have been obvious to the skilled artisan to change order in which the outer electrode and the sintering of the combustible core is performed, since it has been held that changing the sequence of steps in a method involves only routine skill in the art. MPEP 2144.04 IV C

### ***Response to Arguments***

5. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection, see above.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alix Elizabeth Echelmeyer whose telephone number is (571)272-1101. The examiner can normally be reached on Mon-Fri 7-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ula Ruddock can be reached on 571-272-1481. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ULA C. RUDDOCK/  
Supervisory Patent Examiner  
Art Unit 1729

Alix Elizabeth Echelmeyer  
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